

Mercury Fact Sheet

Q. What is mercury?


A. Mercury is versatile, volatile, and variable. It can be gas, liquid or solid. Mercury is found in rocks, soil, air and living organisms. Properties of mercury include high conductivity and liquidity at room temperature. These properties make mercury a useful component in electrical switches, including thermostats. Mercury is also used in dental amalgams, thermometers, lighting, electrical equipment, laboratorial chemicals and pharmaceuticals.

Q. Why be concerned?

A. The characteristics that make mercury so useful can also harm the environment, making mercury one of the primary pollutants of concern in Indiana. Bacteria and other processes in lakes and rivers can convert mercury into methylmercury, which fish may acquire from the water and food they eat. Methylmercury will build up in the fish tissue and may then be carried up the food chain to humans. Mercury contamination can affect the human central nervous system, kidneys and liver. Fetuses and children are the most sensitive to mercury toxicity.

Mercury may become airborne when coal is burned for fuel or when mercury-containing wastes are incinerated. Fossil fuel (coal) combustion is the primary source of mercury in Indiana. However, without this fuel, many of Indiana's vital manufacturing industries and power plants would not be able to operate. The Indiana Department of Environmental Management and U.S. Environmental Protection Agency are currently working together to find pollution prevention opportunities for fossil fuel combustion.

Meanwhile, IDEM is reaching out to industries where mercury substitutions are proven effective and easily attainable. The agency sent letters and made visits to dental and medical offices, hospitals and manufacturers that use caustic soda or sulfuric acid, and to heating, ventilation and air conditioning businesses. IDEM is now working with the HVAC-R industry to address common uses of mercury-containing products.

Due to mercury contamination, the State Department of Health, Indiana Department of Natural Resources and IDEM issued a  [fish consumption advisory](#) for parts of Indiana in 1998. The advisory is based on the latest scientific methods for determining health risk. The advisory provides guidelines on how often fish from certain lakes and rivers can be safely eaten.

Q. What if you work with items that contain mercury?

A. If you work with mercury-containing items, IDEM suggests reducing the use of these products and recycling old mercury-containing items. Environmental concerns have always existed regarding the use of mercury, but there were not many alternatives until

recently. The following table lists alternatives to mercury-containing products as well as recycling opportunities.

Common Uses of Mercury and Alternatives

mercury-containing products - pollution prevention and recycling opportunities	
Mercury Thermostats	Replace with electronic thermostats Recycle old thermostats
Mercury Thermometers	Replace with digital thermometers or alcohol (red bulb) thermometers Recycle old thermometers
Dental Amalgam Filling*	Ask your dentist for a substitute
Mercury-Containing Switches	Replace with mechanical or electric switches
(such as motion-sensors)	Recycle old switches
Batteries	Replace with mercury-free batteries Recycle old batteries
*The primary concern is the disposal of mercury and not the exposure resulting from amalgam.	

For additional information on alternatives to mercury, recycling, proper disposal or IDEM's mercury thermostat initiative, contact Paula Smith (psmith@dem.state.in.us) or Cheri Storms (cstorms@dem.state.in.us) at:

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Questions about the mercury thermostat initiative may also be directed to:

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